

Substitute Form PTO-1449
(MODIFIED)

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO.
10217/250003

SERIAL NO.
09/226,046

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT
(Use several sheets if necessary)

OFF 0 5 1999

APPLICANT
Steven M. Reppert et al.

FILING DATE
January 5, 1999

GROUP
~~1643~~ 1646

(37 CFR 1.98(b))

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		PATENT NUMBER	ISSUE DATE	PATENTEE	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
MPP	BA	5 1 9 4 6 1 4	03/16/93	Andrieux et al.			
MPP	BB	5 2 4 0 9 1 9	08/31/93	Yous et al.			
MPP	BC	5 2 7 6 0 5 1	01/04/91	Lesieur et al.			
	BD						
	BE						
	BF						
	BG						

FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

		DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
MPP	BH	0591057	01/10/93	Europe				
	BI							

OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication)

MPP	BJ	Duranti et al., "2-Bromomelatonin: Synthesis And Characterization Of A Potent Melatonin Against"
		<i>Life Sciences</i> 51: 479-485 (1992)
↑	BK	Reppert et al., "Putative Melatonin Receptors In A Human Biological Clock" <i>Science</i> 242: 78-81 (1988)
	BL	Spadoni et al., "2-Substituted 5-Methoxy-N-Acyltryptamines: Synthesis, Binding, Affinity For The Melatonin Receptor, And Evaluation Of The Biological Activity" <i>The Journal Of Medicinal Chemistry</i> 36: 4069-4074 (1993)
↓	BM	Ying et al., "Human Malignant Melanoma Cells Express High-Affinity Receptors For Melatonin: Antiproliferative Effects Of Melatonin And 6-Chloromelatonin" <i>European Journal Of Pharmacology</i> , 246: 89-96 (1993)
MPP	BN	Yous et al., "Novel Naphthalenic Ligands With High Affinity For The Melatonin Receptor" <i>The Journal Of Medicinal Chemistry</i> 35: 1484-1486 (1992)

EXAMINER

MICHAEL PAK

DATE CONSIDERED

3/5/2000

EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Substitute Disclosure Form (PTO-1449)

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PATENT AND TRADEMARK OFFICE

10217/1003

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09/226,046

INFORMATION DISCLOSURE
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APPLICANTS:

Steven M. Reppert et al.

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1643-1646

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U.S. PATENT DOCUMENTS

EXAMINER INITIAL	PATENT NUMBER	ISSUE DATE	PATENTEE	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUBCLASS	TRANSLATION
					YES NO

OTHER DOCUMENTS (including Author, Title, Date, Place of Publication)

MWP	AA	Bagnara, J.T. and Hadley, M.E., "Endocrinology of the Amphibian Pineal", <u>Am. Zoologist</u> (1970) 10:201-216
↑	AB	Bartness, T.J. and Goldman, B.D., "Mammalian pineal melatonin: A clock for all seasons", <u>Experientia</u> (1989) 45:939-945
	AC	Bittman, E. L. and Weaver, D. Dr., "The distribution of melatonin binding sites in neuroendocrine tissues of the ewe", <u>Biology of Reproduction</u> , (1990) 43:986-993
	AD	Carlson, L.L. et al., "Melatonin Signal Transduction in Hamster Brain: Inhibition of Adenyl Cyclase by a Pertussis Toxin-Sensitive G Protein", <u>Endocrinology</u> (1989) 125:2670-2676
	AE	Dubocovich, M.L. and Takahashi, J.S., "Use of 2-[¹²⁵ I]iodomelatonin to characterize melatonin binding sites in chicken retina", <u>Proc. Natl. Sci. USA</u> (1987) 84:3916-3920
	AF	Ebisawa, T. et al., "Expression cloning of a high-affinity melatonin receptor from <i>Xenopus</i> dermal melanophores", <u>Proc. Natl. Acad. Sci. USA</u> , (1994) 91:6133-6137
	AG	Geissler, E.W. et al., "Stem Cell Factor (SCF), a Novel Hematopoietic Growth Factor and Ligand for c-kit Tyrosine Kinase Receptor, Maps on Human Chromosome 12 between 12q14.3 and 12qter", <u>Somatic Cell and Molecular Genetics</u> , (1991) 17(2):207-214
	AH	Glaser, T., Housman, D., Lewis, W.H., Gerhard, D. & Jones C. "A Fine-Structure Deletion Map of Human Chromosome 11p: Analysis of J1 Series Hybrids" <u>Somat. Cell. Mol. Genet.</u> , (1989) 15:477-501, Fig. 23.
	AI	Karne, S. et al., "Cloning and Characterization of an Endothelin-3 Specific Receptor (ET _c Receptor) from <i>Xenopus laevis</i> Dermal Melanophores", <u>J. Biol. Chem.</u> (1993) 268:19126-19133
	AJ	Karsch, F.J. et al., "Neuroendocrine Basis of Seasonal Reproduction", <u>Recent Prog. Horm. Res.</u> (1984) 40:185-232
	AK	Kozak, M., "An analysis of 5'-noncoding sequences from 699 vertebrate messenger RNAs", <u>Nucleic Acids Res.</u> (1987) 15:8125-8148
↓	AL	Kyte, J. and Doolittle, R.F., "A Simple Method for Displaying the Hydropathic Character of a Protein", <u>J. Mol. Biol.</u> (1982) 157:105-132
MWP	AM	Laitinen, J.T. and Saavedra, J.M., "Characterization of Melatonin Receptors in the Rat Suprachiasmatic Nuclei: Modulation of Affinity with Cations and Guanine Nucleotides", <u>Endocrinology</u> (1990) 126:2110-2115

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APPLICANT:
Steven M. Reppert et al.

FILING DATE
January 5, 1999

GROUP
1642/1646

(37 CFR 1.98(b))

OTHER DOCUMENTS (including Author, Title, Date, Place of Publication)

MP	AM	Morgan, P.J. et al., "Guanine Nucleotides Regulate the Affinity of Melatonin Receptors on the Ovine Pars tuberalis", <u>Neuroendocrinology</u> (1989) 50:359-362
↑	AO	Munson, P.J. and Rodbard, D., "LIGAND: A Versatile Computerized Approach for Characterization of Ligand-Binding Systems", <u>Anal. Biochem.</u> (1980) 107:220-239
	AP	Pelletier, J. et al., "Short Communication - Assignment of Two of the Translation Initiation Factor-4E (EIF4EL1 and EIF4EL2) Genes to Human Chromosomes 4 and 20", <u>Genomics</u> (1991) 10(4):1079-1082
	AQ	Reppert, S.M. et al., "Putative Melatonin Receptors in a Human Biological Clock", <u>Science</u> (1988) 242:78-81
	AR	Reppert, S.M. et al., "Cloning and Characterization of a Mammalian Melatonin Receptor That Mediates Reproductive and Circadian Responses", <u>Neuron</u> (1994) 13:1177-1185
	AS	Rivkees, S.A. et al., "Guanine nucleotide-binding protein regulation of melatonin receptors in lizard brain", <u>Proc. Natl. Acad. Sci. USA</u> (1989) 86:3882-3886
	AT	Vanecek, J., "Melatonin Binding Sites", <u>J. Neurochem.</u> (1988) 51:1436-1440
✓	AU	Weaver, D.R. et al., "Localization of Melatonin Receptors in Mammalian Brain" in <u>Suprachiasmatic nucleus: the mind's clock</u> , Klein, D.C. Moore, R.Y., and Reppert, S.M. (1991) eds. New York: Oxford University Press: pp 289-308
MP	BA	Weaver, D.R. et al., "Localization and Characterization of Melatonin Receptors in Rodent Brain by <i>in vitro</i> Autoradiography", <u>The Journal of Neuroscience</u> (1989) 9(7):2581-2590
	BB	
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SUPPLEMENTAL INFORMATION DISCLOSURE
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10217/25/93

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APPLICANTS:

Steven M. Reppert et al.

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January 5, 1999

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1643/646

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U.S. PATENT DOCUMENTS

EXAMINER INITIAL	PATENT NUMBER	ISSUE DATE	PATENTEE	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

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DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUBCLASS	TRANSLATION	
					YES	NO

OTHER DOCUMENTS (including Author, Title, Date, Place of Publication)

AMP	AA	Carlson, Linda L. et al. "Melatonin Signal Transduction in Hamster Brain: Inhibition of Adenylyl Cyclase by a Pertussis Toxin-Sensitive G. Protein", <u>Endocrinology</u> (1989) Vol.125:2670-2676
↑	AB	Dubocovich, Margarita L., "Pharmacology and Function of Melatonin Receptors" <u>FASEB Journal</u> (1988) Vol.2:2765-2773
↓	AC	Kopin, Alan S. et al., "Expression Cloning and Characterization of the Canine Parietal Cell Gastrin Receptor" <u>Proc.Natl.Acad.Sci. USA</u> (1992) Vol.89:3605-3609
AMP	AD	Masu, Yasuo et al., "cDNA Cloning of Bovine Substance-K Receptor Through Oocyte Expression System" <u>Nature</u> (1987) Vol.329:836-838
	AE	
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U.S. PATENT DOCUMENTS

EXAMINER INITIAL	PATENT NUMBER	ISSUE DATE	PATENTEE	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
MOP	AA 5 5 0 8 1 6 4	04/96	Kausch et al.	435	6	
	AB					
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	AH					
	AI					

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MOP	AJ PCT/US95/07360		PCT			
	AK					
	AL					

OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication)

MOP	AM	Bowie et al., Science 247:1306-1310 (1990)
	AN	Fraser et al., "Melatonin Receptor mRNA Expression in Xenopus Oocytes: inhibition of G-Protein-activated Response", NEUROSCIENCE LETTERS, 124:242-245 (1991)
	AO	George et al., "Macromolecular Sequencing and Synthesis Selected Methods and Application (Ed. by D.H. Schlesinger), Alan R. Liss Inc., New York, pp. 127-149 (1988)
	AP	Wallace et al., METHODS IN ENZYMOLOGY 152:422-432 (1987)
MOP	AQ	Watson et al., "The G-Protein Linked Receptor Facts Book, Academic Press, San Diego, pp. 2-6, 8-9, (1994)

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3/5/2000

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FORM PTO 1449 (modified) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE LIST OF REFERENCES CITED BY APPLICANT(S) (Use several sheets if necessary)				ATTY DOCKET NO. APPLICANT Steven M. Reppert FILING DATE 11/5/99 DEC 06 1999		APPLICATION NO. 09/226,046 GROUP 1646	
U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
	MWP	5,194,614	3/16/93	Andrieux et al.			
		5,240,919	8/31/93	Yous et al.			
		5,276,051	1/4/94	Lesieur et al.			
MWP	5,464,872	11/7/95	Langlois et al.				
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT
MWP	WO	95/35320	12/28/95	PCT			
MWP		0,591,057	10/1/93	EPO			
OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)							
MWP		S.P. Fraser et al., "Melatonin receptor mRNA expression in <i>Xenopus</i> oocytes: inhibition of G-protein-activated response" <i>Neuroscience Letters</i> , 123 (1991), 242-245.					
		M.L. Dubocovich, "Pharmacology and function of melatonin receptors" <i>The FASEB Journal</i> , Vol. 2 (1988), 2765-2773.					
		L.L. Carlson et al., Melatonin signal transduction in hamster brain: Inhibition of adenylyl cyclase by a pertussis toxin-sensitive G protein" <i>Endocrinology</i> , Vol. 125 (1989), 2670-2676.					
MWP		Yous et al., "Novel naphthlaenic ligands with high affinity for the melatonin receptor" <i>Journal of Medicinal Chemistry</i> , Vol. 35 (1992), 1484-1486.					
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MICHAEL 1996				3/5/2000			

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APPLICANT

Steven M. Reppert

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11/5/99

DEC 06 1999

GROUP

1646

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT

OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

MPF	G. Spandoni et al., "2-Substituted 5-Methoxy-N-acyltryptamines: Synthesis, binding affinity for the melatonin receptor, and evaluation of the biological activity" <i>Journal of Medicinal Chemistry</i> , Vol. 36 (1993), 4069-4074.
↑	S.M. Reppert et al., "Putative melatonin receptors in a human biological clock" <i>Science</i> , Vol. 242 (1988), 78-81.
↓	S.W. Ying et al., "Human malignant melanoma cells express high-affinity receptors for melatonin: antiproliferative effects of melatonin and 6-chloromelatonin" <i>European Journal of Pharmacology - Molecular Pharmacology Section</i> , Vol. 246 (1993), 89-96.
MPF	E. Duranti et al., "2-Bromomelatonin: synthesis and characterization of a potent melatonin agonist" <i>Life Sciences</i> , Vol. 51 (1992), 479-485.

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Sheet 2 of 2